



[10191/3705]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

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In re Application of:

Andreas FINK et al.

For: FASTENING ASSEMBLY

Filed: August 10, 2005

Serial No.: 10/524,811

: Examiner: David C. REESE

: Art Unit: 3677

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**Second SUPPLEMENTAL/REPLACEMENT APPEAL BRIEF  
PURSUANT TO 37 C.F.R. § 41.37**

SIR:

In the above-identified patent application ("the present application"), the Final Office Action of November 24, 2008 finally rejected claims 9 to 11, 13 to 17, and 19 to 26. Appellants filed a Notice Of Appeal on May 22, 2009 from the Final Office Action, so that the two-month appeal brief due date was July 22, 2009.

The Appeal Brief was filed on July 22, 2009. A Notice of Non-compliance was mailed on December 31, 2009, so that the one-month response date is February 1, 2010 (since January 31, 2010 is a Sunday).

It is understood for purposes of the appeal that any Amendments to date, including the Amendment After Final, have already been entered by the Examiner.

*The Supplemental/Replacement Appeal Brief filed on September 28, 2009 was deemed non-compliant in the Notification of Non-Compliant Appeal Brief (37 CFR 41.37) of December 31, 2009. In the Notification: it was stated as to item 4 that "The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal," since the applicant purportedly did not map the independent claim with reference to the drawings by reference characters, as stated in item 10. It is noted that this objection was not raised in the prior Notice of Non-compliance. While the Notification may not be agreed with, to facilitate matters, this response is filed herewith.*

*This second Supplemental/Replacement Appeal Brief is believed to comply with all the requirements of Rule 41.37, and to address the issues raised in Notice.*

*As to the length of the "concise explanation" of the subject matter defined in each of the claims involved in the appeal (see 41.37), the "concise explanation" language is like the "concise explanation" requirement of former Rule 37 CFR 1.192. Accordingly, the length of the concise explanation provided is therefore acceptable, since it would have been acceptable under 37 CFR 1.192 and since it specifically defines the subject matter of the independent claims involved in the appeal. In the filing of many appeal briefs for the present Assignee, the length of the final "concise explanation" has always been finally accepted by the Patent Office.*

It is therefore respectfully submitted that this Appeal Brief complies with 37 § C.F.R. 41.37. Although no longer required by the rules, this Brief is submitted in triplicate as a courtesy to the Appeals Board.

It is respectfully submitted that the final rejections of pending and considered claims 9 to 11, 13 to 17 and 19 to 26 should be reversed for the reasons explained below.

**1. REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Robert Bosch GmbH (“Robert Bosch”) of Stuttgart in the Federal Republic of Germany. Robert Bosch is the assignee of the entire right, title and interest in the present application.

**2. RELATED APPEALS AND INTERFERENCES**

There are no interferences or other appeals related to the present application, which “will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal”.

**3. STATUS OF CLAIMS**

**CLAIMS 1 TO 8, 12, AND 18 ARE CANCELED.**

A. Claims 9 to 11, 13, 14, 17, 19, 22, 23, and 26 stand rejected under 35 U.S.C. 102(b) as anticipated over U.S. Patent No. 6,309,132 (“Jakob”).

B. Claims 15, 16, 20, 21, 24, and 25 stand rejected under 35 U.S.C. 103(a) as unpatentable over “Jakob” in further view of European Patent No. EP 0747604 (“Spurr”).

Appellants therefore appeal from the final rejections of pending claims 9 to 11, 13 to 17, and 19 to 26. A copy of all of the pending and appealed claims 9 to 11, 13 to 17, and 19 to 26 is attached hereto in the Appendix.

**4. STATUS OF AMENDMENTS**

In response to the Final Office Action mailed on November 24, 2008, an Amendment After A Final Office Action was mailed on February 11, 2009 (and filed on February 17, 2009) in response to the Final Office Action, and an Advisory Action was mailed on May 22, 2009. The Advisory Action dated May 22, 2009 stated that the proposed amendments would be entered. As such, it is believed that the proposed claim amendments included in the “Amendment After A Final Office Action” have been entered.

## 5. SUMMARY OF CLAIMED SUBJECT MATTER

*As to independent claim 9, its claimed subject matter is described as follows, and is directed to addressing the following problems and/or providing the following benefits, and as described in the context of the present application.*

*The presently claimed subject matter of claim 9 relates generally to a fastening assembly using a keyhole principle. (See specification, e.g., Abstract). The bolt having a round head having a smooth surface, is advantageous because this requires fewer work steps for manufacturing the bolt since the engagement surface for the tool is eliminated. Further, the head can be thinner than in the case of a head that has an engagement surface. This saves material and costs. (See specification, page 3, lines 16 to 22).*

*Independent claim 9 is to a fastening assembly including a first component (1) having a threaded bushing. (See specification, page 3, lines 17 to 20 and Figs. 1, 2 and 4). The fastening assembly further includes a second component (5) having a keyhole shaped cut-out including a larger opening and a smaller opening (6,7) (see specification, page 5, lines 4 to 10 and Figs. 2, 3 and 4,) and a self-locking bolt configured to be screwed into the threaded bushing so that the bolt can be guided with the head (2) through the larger opening of the cut-out (6). (See specification at page 3, lines 20 to 23 and Figs. 1 to 6). The head (2) engages behind the smaller opening (7) of the cut-out for fastening. (See specification, e.g., page 5, lines 4 to 5, Abstract, and Figs. 1 to 6). The bolt has engagement surfaces (20) for a tool at an end of the shank (10), in which the head (2) has a bottom surface connecting the head to the shank (10) and a top surface that is round and smooth. (See specification, page 4, lines 3 to 7 and Figs. 1 to 6).*

Finally, the appealed claims include no means-plus-function language and no step-plus-function claims, so that 41.37(v) is satisfied as to its specific requirements for such claims, since none are present here. Also, the present application does not contain any step-plus-function claims because the method claims in the present application are not "step plus function" claims because they do not recite "a step for," as required by the Federal Circuit and as stated in Section 2181 of the MPEP.

**6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

A. Whether claims 9 to 11, 13, 14, 17, 19, 22, 23, and 26 were properly rejected under 35 U.S.C. 102(b) over U.S. Patent No. 6,309,132 (“Jakob”).

B. Whether claims 15, 16, 20, 21, 24, and 25 were properly rejected under 35 U.S.C. 103(a) over “Jakob” in view of EP 0747604 (“Spurr”).

**7. ARGUMENTS**

**A. REJECTIONS UNDER 35 U.S.C § 102(B)  
OF CLAIMS 9 to 11, 13, 14, 17, 19, 22, 23 and 26**

**CLAIMS 9 to 11, 13, 14, 17, 19, 22, 23 & 26**

Claims 9 to 11, 13, 14, 17, 19, 22, 23, and 26 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,309,132 (“Jakob”).

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(b), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (*See Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Final Office Action does not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter. (*See Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Final Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art.” (*See* M.P.E.P. § 2112; emphasis in original; and *see Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

Independent claim 9 is to “a self-locking bolt” and includes the features of “engagement surfaces for a tool at an end of the shank, *in which the head has a bottom surface connecting the head to the shank and a top surface that is round and smooth.*”

The Final Office Action conclusorily “maintains that the head (38) has a bottom surface (bottom of 38) connecting the head (38) to the shank and a top surface (top of 38) that is round and smooth (the bottom of 38 connects the head to the shank and the top of 38 is round and smooth).” Final Office Action at paragraph 7 (Nov. 24, 2008).

First, it is respectfully submitted that the surface described by the Final Office Action is not the surface of the claimed subject matter. Further, the “top” surface of Jakob cannot be identically described as having a smooth surface, as provided for in the context of the presently claimed subject matter, because it has a *hexagonal shaped tool* interface protruding out of it.

*In this regard, the online dictionary selected by the Office states that the word “smooth” has a first definition of “free from projections or unevenness of surface; not rough.” (<http://wordnet.princeton.edu/perl/webwn?s=smooth>). The surface of the head, which is not attached to the shank, is clearly not “free from projections,” as the tool interface is projecting from it. Thus, neither surface of “Jakob” is a “smooth surface” as provided for in the context of claim 9.*

It is respectfully submitted that the Office Actions to date essentially ignore the proper meanings of the terms, like “top surface” and “smooth” – which are to be understood in view of the specification. The Office essentially ignores the reasonable interpretation of the above-discussed terms and features, as provided for in the context of the claimed subject matter, and as would be understood by a person having ordinary skill in the art based on the specification. (See *In re Weiss*, 26 U.S.P.Q.2d 1885, 1887 (Fed. Cir. 1993) (when interpreting a claim term or phrase, one must “look to the specification for the meaning ascribed to that term”; Board reversed) (unpublished decision); *In re Okuzawa*, 190 U.S.P.Q. 464, 466 (C.C.P.A. 1976) (“claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their broadest *reasonable* interpretation”; Board reversed; emphasis in original) (citing *In re Royka*, 180 U.S.P.Q. 580, 582-83 (C.C.P.A. 1974) (claims are “not to be read in a vacuum and while it is true that they are to be given the broadest reasonable interpretation during prosecution, their terms still have to be given the meaning called for by the specification of which they form a part”;

Board reversed; emphasis in original); and *In re Rohrbacher*, 128 U.S.P.Q. 117, 119 (C.C.P.A. 1960) (an “applicant is his own lexicographer and words used in his claims are to be interpreted in the sense in which they are used in the specification”; Board reversed)).

*It is respectfully submitted that this is exactly the case here since contrary to the foregoing law, the Final Office Action simply reflects its own unreasonable reading of the discussed terms.* Indeed, the Office has yet to explain how the top surface -- with a hexagonal shaped tool interface protruding out of it -- is somehow “smooth.” Instead, the Office asserts that “though it is apparent that the top surface of 38 does indeed have a hexagonal shaped tool interface protruding out of it, this interface, however, does not preclude the other are of the top surface ... from being round and smooth; rather, ... there is a good amount of top surface of 38 where there is no interface and which can and is considered round and smooth.” (*Advisory Action*). Thus, although the Office essentially concedes that the top surface is not round and smooth but *hexagonal* in shape, it still unreasonably maintains that it is round and smooth.

If the tool interface is considered affixed to the top surface (e.g., not part of the top surface), then the top surface is clearly not “smooth,” as a large tool interface is protruding out of it. If the tool interface is considered part of the top surface, then the top surface is clearly not “smooth,” as the six hexagon edges protrude from the interface shape.

Accordingly, “Jakob” does not identically disclose (nor even suggest) all of the above-discussed features of claim 9, as presented, so that it is allowable, as are its dependent claims.

**B. REJECTIONS UNDER 35 U.S.C § 103(A)  
OF CLAIMS 15, 16, 20, 21, 24 & 25**

**CLAIMS 15, 16, 20, 21, 24 and 25**

Claims 15, 16, 20, 21, 24 and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over “Jakob” in view of EP 0747604 (“Spurr”).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This

teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 15, 16, 20, 21, 24 and 25 depend from claim 9, and are therefore allowable for at least the same reasons as claim 9, since any review of the secondary reference makes plain that it does not cure -- and it not asserted to cure -- the critical deficiencies of the primary reference.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (*See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)).

It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (*See In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618



(Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and any Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Withdrawal of the obviousness rejections of 15, 16, 20, 21, 24 and 25 is therefore respectfully requested.

It is therefore respectfully requested that all rejections of the pending claims be withdrawn.

**CONCLUSION**

In view of the above, it is respectfully requested that the rejections of claims 9 to 11, 13 to 17, and 19 to 26 be reversed, and that these claims be allowed as presented.

Dated: \_\_\_\_\_

*2/1/2010*

Respectfully submitted,

By: \_\_\_\_\_

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**CLAIMS APPENDIX**

1-8. (Canceled).

9. A fastening assembly, comprising:

a first component having a threaded bushing;

a second component having a keyhole shaped cut-out including a larger opening and a smaller opening; and

a self-locking bolt configured to be screwed into the threaded bushing so that the bolt can be guided with the head through the larger opening of the cut-out and the head engages behind the smaller opening of the cut-out for fastening, the bolt having engagement surfaces for a tool at an end of the shank, wherein the head has a bottom surface connecting the head to the shank and a top surface that is round and smooth.

10. The fastening assembly as recited in claim 9, wherein the engagement surfaces have a form of one of an external toothing or an external polyhedron.

11. The fastening assembly as recited in claim 9, wherein the shank of the bolt has a left-hand thread.

12. (Canceled).

13. The fastening assembly as recited in claim 9, wherein the bolt has a coated thread, the self-locking being achieved via the coating.

14. The fastening assembly as recited in claim 9, wherein the bolt has a thread configured to be thread-forming for a corresponding bushing, the self-locking being achieved via the thread-forming configuration.

15. The fastening assembly as recited in claim 9, wherein the first component includes a translation guard configured to prevent a translatory movement of the first component when fastened.

16. The fastening assembly as recited in claim 9, wherein the first component includes a rotation guard configured to prevent a rotational movement of the first component via the second component when fastened.

17. The fastening assembly as recited in claim 9, wherein the bolt shank has a thread over at least a portion of the shank.

18. (Canceled).

19. The fastening assembly as recited in claim 9, wherein the engagement surfaces have a form of one of an external tothing or an external polyhedron, wherein the shank of the bolt has a left-hand thread, and wherein the bolt has a coated thread, the self-locking being achieved via the coating.

20. The fastening assembly as recited in claim 19, wherein the first component includes a translation guard configured to prevent a translatory movement of the first component when fastened.

21. The fastening assembly as recited in claim 19, wherein the first component includes a rotation guard configured to prevent a rotational movement of the first component via the second component when fastened.

22. The fastening assembly as recited in claim 19, wherein the bolt shank has a thread over at least a portion of the shank.

23. The fastening assembly as recited in claim 9, wherein the engagement surfaces have a form of one of an external tothing or an external polyhedron, wherein the shank of the bolt has a left-hand thread, and wherein the bolt has a thread configured to be thread-forming for a corresponding bushing, the self-locking being achieved via the thread-forming configuration.

24. The fastening assembly as recited in claim 23, wherein the first component includes a translation guard configured to prevent a translatory movement of the first component when fastened.

25. The fastening assembly as recited in claim 23, wherein the first component includes a rotation guard configured to prevent a rotational movement of the first component via the second component when fastened.

26. The fastening assembly as recited in claim 23, wherein the bolt shank has a thread over at least a portion of the shank.

U.S. Pat. App. Ser. No. 10/524,811  
Attorney Docket No. 10191/3705  
Second Supplemental/Replacement Appeal Brief

EVIDENCE APPENDIX

Appellants have not submitted any evidence pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, and do not rely upon evidence entered by the Examiner.

U.S. Pat. App. Ser. No. 11/044,119  
Attorney Docket No. 10191/4000  
Appeal Brief

RELATED PROCEEDINGS INDEX

There are no interferences or other appeals related to the present application.